

collars on its spindle, between which a friction wheel can revolve. This is mounted on an auxiliary shaft, in such a way that either of the collars can be made to come into contact with it in accord with the sense of the change of speed of the engine. Connected to the shaft, and revolving with it, is a long screw upon which a weight rides, its position on the screw depending upon the action of the supplementary governor. The end of the revolving screw is carried in a bearing, suspended from the lever of the main governor, and the varying position of the weight along the screw modifies the effect of the centre weight of the governor upon the balls.

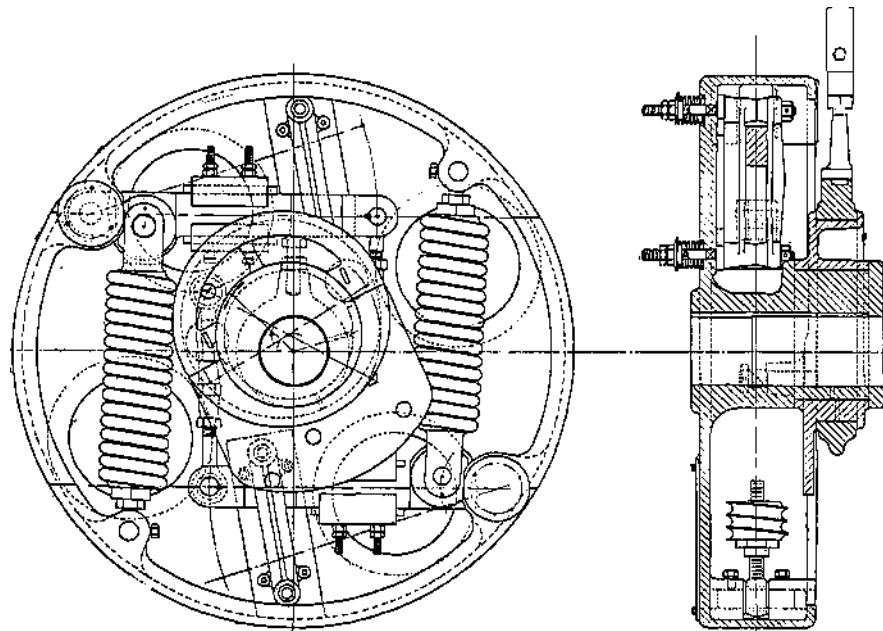


Fig. 26.—Crank-shaft Governor

Extremely accurate regulation is obtained by this means for gradually varying loads, but for sudden variations the sensitiveness is that of the main governor alone. The arrangement is shown in fig. 24.

With the advent of the Uniflow type of engine in which the speed of revolution is not high, crank-shaft governors have again come into favour for regulating the cut-off with drop valves, more especially when the so-called positive type of valve gear is used.

The general principle upon which they are designed is that the angle of advance of the eccentric is modified by the movement of weights, the centrifugal force of which is controlled by springs. An example of this type of governor, made by Messrs. Robey & Co., is

shown in fig. 25.

This governor is fixed upon the lay-shaft from which the
valve gear is
driven.

Another example, by John Musgrave & Co., Ltd., of
Bolton, is shown